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Aircraft and Space Vehicles Sectional Committee, EDC 74; Terminology and Symbols for Aircraft and Space Vehicles Subcommittee, EDC 74:1 [Ref: Doc: EDC 74 (3425)]

Indian Standard (Reaffirmed 2005)

GLOSSARY OF TERMS FOR AIRLINE TECHNICAL OPERATIONS

1. Scope — Covers definitions for glossary of terms used for airline technical operations.

2. Terminology

Term	*Definition*
Accessibility	A design feature which affects the ease of admission to an area for the performance of visual and manipulative maintenance.
Accessory	A part, subassembly or assembly designed for use in conjunction with or to supplement another assembly or unit.
Accident	An occurrence associated with the operation of an aircraft, which takes place between the time any person boards the aircraft with the intention of flight, until such time as all such persons have disembarked, in which: a) Any person suffers death or serious injury as a result of being in the aircraft, or by direct contact with the aircraft or anything attached thereto; or b) the aircraft receives substantial damage; or c) any damage is caused to the property of a third party.
Age, Threshold	The time before which inspection of the condition of an item is required, or beyond which inspection is considered to provide information on the condition of the item about its usefulness. **Note** — Threshold age may be specified as an upper limit before which inspection must be performed, or may be specified as a lower limit below which an inspection is not considered to provide useful information.
Airborne Integrated Data System (AIDS)	Automatic in-flight recording and/or monitoring of specified parameters.
Aircraft in Service	The average number of aircraft used in aircraft operations and normal maintenance during a reporting period. **Note** — The number of aircraft in service is calculated from the aircraft days available for the period divided by the total number of days in the period. Aircraft days available include days required for normal maintenance and overhaul.
Aircraft on Ground (AOG)	The highest priority designation to process a requirement for a spare part(s) and/or maintenance action. It also indicates that an aircraft is unable to continue or be returned to revenue service until the appropriate action is taken.
Aircraft Utilization (Utilization)	The average daily flying hours for one in-service aircraft (of a given fleet). **Note** — It is computed by dividing the total flying hours (airborne) accumulated by the fleet in a reporting period by the number of in-service aircraft days in the same period. Utilization may also be expressed in flying hours per year.
Alternate (Alternative Item, Alternative Procedure, Alternate)	An item which fully meets the required functional and structural specifications but differs either in overall external dimensions, connections, installations and/or mounting provisions and requires additional parts, rework, or modification to be installed in a specific application. Alternate procedures fully meet the required maintenance specifications, but may require additional documentation, training, manning, special tooling and/or test equipment.

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Term	*Definition*
Alternative	*See* ALTERNATE.
Analysis, Criticality	An extension of failure mode and effect analysis, wherein the degree of degradation of aircraft operating safety due to failure effects is predicted.
Analysis, Failure Mode and Effect	A systematic evaluation of a system or subsystem design, analyzed down to the component and/or function level, to identify the possible modes of failure and determine their effect on the system or aircraft.
Analysis, Maintenance (Study, Work)	The process of identifying required maintenance functions through analysis of a fixed or assumed design and determining the most effective means of accomplishing these functions.
Analysis, Performance	The assessment of the performance level of an item, aircraft or fleet from performance data, or measurements or statistical information.
Analysis, Reliability	The assessment of probabilities of satisfactory performance of an item under specified conditions of use over a given service period by means of statistical studies.
Arrival, Late (Technical)	An aircraft arrival after scheduled arrival time, caused by a known or suspected equipment malfunction and/or defect.
Assembly	A number of parts, sub-assemblies, or any combination thereof joined together to perform a specific function, which can be disassembled without impairing the designed use. **Note** — The distinction between an assembly and a sub-assembly is not always exact — an assembly in one instance may be a sub-assembly in another where it forms a portion of an assembly.
Assembly, Next Higher	An assembly to which the particular item under discussion is attached or is a part of — either directly or through intermediate attaching parts.
Burden, Maintenance	*See* Cost, Indirect Maintenance (IMC)
Burn-in	*See* RUN-IN
Calibration	The application of a specifically known and accurately measured input to ensure that an item will produce a specifically known output which can be accurately measured or indicated. Calibration includes adjustment or recording of corrections, as appropriate.
Cancel	Determined to be no longer usable in a particular former application. (*See* "DELETE" if the item is unnecessary and can be omitted without the need for future reference).
Cancellation (Technical)	Elimination of a scheduled trip because of a known or suspected malfunction and/or defect. **Note** — Cancellation of any or all of the flight legs of a multi-leg trip constitutes only one cancellation.
Card, Job	A card issued to the workman giving details of the work to be done. Usually contains provision for recording start and completion times and the estimated target or standard hours.
Card, Work	*See*, Card, Job.
Cause, Basic	The cause of a defect, failure or damage which results in malfunctioning of an item when: a) Being operated in a manner for which it was designed, and b) the cause was not externally induced.

Term	*Definition*
Check	An examination to determine the functional capability or physical integrity of an item.
Check, Bench	A functional check of an item in the shop to determine whether or not the item may be returned to service, or whether it requires adjustment, repair or overhaul.
Check, Functional **(Test, Functional)**	A detail test of an item to determine if it operates within prescribed limits of movement, flow, temperature, pressure, etc.
Complaint **(Snag)**	A known or suspected malfunction or defect found by flight crew or maintenance personnel which is documented and requires maintenance action.
Complaints, Maintenance	Reports of discrepancies which are found by maintenance personnel and which require maintenance action.
Complaints, Pilot	Suspected or known malfunctions or unsatisfactory conditions entered by the flight crew into the aircraft log and which require maintenance action.
Component	Any self-contained part, combination of parts, sub-assemblies or units, which perform a distinctive function necessary to the operation of a system.
Concept, Maintenance	Generalized maintenance management ideas and general maintenance principles which are studied and then developed into a specific plan for application through a particular maintenance programme.
Condition Monitoring	*See* Maintenance, Condition Monitored
Cost, Direct Maintenance **(DMC)**	Those maintenance labour and material costs directly expended in maintaining an item or an aircraft. **Note** — This does not include those indirect maintenance labour and material expenditures which contribute to the overall maintenance operations, line station servicing, administration, record keeping, supervision, tooling, test equipment, facilities, etc.
Cost, Indirect Maintenance **(IMC)** **Burden Maintenance**	Those maintenance labour and material costs not considered to be direct maintenance costs, but which contribute to the overall maintenance programme costs through overhead operations, administration, record keeping, supervision, tooling, test equipment, facilities, etc.
Cycle, Aircraft Operating **Cycle, Flight (Landing)**	A completed take-off and landing sequence. **Note** — Touch-and-go landings are counted as Aircraft Operating Cycles.
Cycle, Engine Operating	A completed engine thermal cycle including the application of take-off power.
Cycle, Flight (Landing)	*See* Cycle, Aircraft Operating.
Cycle, Supersonic	A completed supersonic flight sequence comprising acceleration through Mach 1 and deceleration to subsonic flight. **Note** — One aircraft operating cycle can include more than one supersonic cycle.
Damage, Foreign Object **(FOD)**	Damage to any portion of the airplane caused by impact or ingestion of birds, stones, hail or other debris.
Damage, Ingestion **(Damage. Foreign Object)** **(FOD)**	Internal damage to an engine caused by an outside object such as birds, stones, or other foreign objects.

Term	*Definition*
Debugging	A process to detect and remedy inadequacies preferably prior to operational use.
Defect	Any confirmed abnormal condition of an item, whether or not this could eventually result in a failure.
Deferability	The possiblity that an item can remain inoperable and/or defective within the terms of the Minimum Equipment List (MEL) or Configuration Deviation List (CDL).
Delay (Technical)	Technical delays occur when the malfunctioning of an item, the checking of the same or necessary corrective action causing the final departure to be delayed by more than a specified time after the programmed departure time in any of the following instances: i) an originating flight departs later than the scheduled departure time. ii) a through service or turn - around flight remains on the ground longer than the allowable ground time. iii) the aircraft is released late from maintenance. **Note** — A cancellation supersedes a delay (that is, a flight which is cancelled after having been delayed is considered to be a cancellation only — not a delay and a cancellation).
Delete	Removal of an item from a specific application. For technical data, " Delete " indicates the removal of a paragraph, phrase, page, etc.
Departure	Movement of an aircraft from the blocks for the purposes of an intended flight. **Note 1** — There can be only one departure per flight (that is, only the final departure is counted as in cases where the aircraft returns to the block after initially departing . **Note 2** — For convenience, some operators consider a departure to occur each time an aircraft leaves the ground for a flight.
Derating	The intentional reduction of the stress/strength ratio in the application of an item, usually for the purpose of reducing the occurrence of stress-related failures.
Diversion (Technical)	The landing of an aircraft at an airport other than the airport of origin or destination, as a result of malfunction or suspected malfunction of any item on the aircraft.
Downtime	The time during which an aircraft is not available for flight for technical reasons.
Downtime, Active Maintenance	The maintenance downtime during which work is being done on an item or an aircraft.
Downtime, Maintenance	The interval between the time an item or aircraft is made available for preventive or corrective maintenance until the item or aircraft is returned to or considered available for service use.
Downtime, Non-Active Maintenance	The maintenance downtime during which no work is being done on the item or aircraft.
Effectiveness, System	The probability that a system can successfully meet an operational demand within a given time when operated under specified conditions.
Effectiveness, Unscheduled Maintenance	The percentage of the total number of unscheduled maintenance actions which were successful.

Term	*Definition*
Effectivity	Indicates the applicability of items, materials and/or technical data to a type, series, model or individual item.
Engine	The basic engine assembly plus its essential accessories as supplied by the engine manufacturer.
Engine, Basic	Those units and components which are used to induce and convert fuel air mixture into power; to transmit power to the propeller shaft, if any, and accessory drives; to supplement the function of other defined systems external to the engine; and to control and direct the flow of internal lubrication.
Engine, Maximum Neutral	An engine plus those parts making it peculiar to an aircraft type, but not to any particular position on the aircraft.
Engineering, Human	The determination of man's capabilities and limitations as they relate to the equipment or systems he will use, and the application of this knowledge to the planning, design, and testing of man-machine combinations to obtain optimum performance, operability, reliability, efficiency, safety, and maintainability.
Equipment, Airborne Support (ASE)	All equipment required on the aircraft to support the operation and maintenance of the aircraft and all its airborne equipment.
Equipment, Aircraft Ground (AGE)	*See* Equipment, Ground Support (GSE).
Equipment, Automatic Test	Equipment which automatically carries out a predetermined programme of testing for possible malfunction with minimum reliance on human intervention.
Equipment, Ground Support (GSE) **[Equipment, Aircraft Ground (AGE)]**	Equipment required on the ground to support the operation and maintenance of the aircraft and all its airborne equipment.
Equipment, Support	Equipment required to support the operation and maintenance of the aircraft and all its airborne equipment.
Error, Build **(Error, Production)**	Those faulty functions which occur and are not rectified during the assembly and/or subsequent test of an item during manufacture, overhaul or repair.
Error, Maintenance	An error on the part of maintenance personnel in operation maintenance on an item which results in subsequent failure or malfunction, or an error in published maintenance procedures which results in subsequent failure or malfunction.
Error, Production	*See* ERROR , BUILD.
Evaluation, Service	An evaluation of an item while performing its intended function during normal operation of the aircraft.
Evaluation, Structural (Airframe)	The assessment of any data which relates to the structural integrity of the airframe. **Note** — Examples of data that may be considered are listed below: i) Removal reports, ii) Failure mode reports, iii) Inspection write-ups, iv) Flight hours, v) Pilot reports, vi) Aircraft operating cycles, and vii) Time.

Term	*Definition*
Expendable	Items for which no authorized repair procedure exists and whose cost of repair would normally exceed that of replacement.
Extra Section (XSEC)	Any flight made to accommodate passengers or cargo not handled by the regular flight schedule.
Factor, Accelerated Test	*See* Factor, Acceleration.
Factor, Acceleration (Factor, Accelerated Test)	The ratio between the times necessary to obtain a stated proportion of failures for two different sets of stress conditions involving the same failure modes and/or mechanisms.
Factor, Derating	The ratio of operating to design stress.
Factors, Human	Human physiological, physical and psychological characteristics relative to complex systems and the development and application of principles and procedures for accomplishing optimum man-machine integration and utilization. The term is used in a broad sense to cover all biomedical and psycho-social considerations pertaining to a man in the system.
Factor, Operating (In-Service Equipment)	The ratio of the operating hours of the in-service equipment under consideration to the number of flying hours incurred by the equipment.
Failure	The inability of an item to perform within a previously specified limits.
Failure, Basic	A defect, failure or damage as a result of malfunctioning of a system, unit or part while being used in the manner for which it was designed and which was not externally induced.
Failure, Dependent	*See* Failure, Secondary.
Failure, Independent	*See* Failure, Primary.
Failure, Primary (Failure, Independent)	Failure of an item which occurs without being caused by the failure of an associated item(s).
Failure, Random	Failure of an item which is unpredictable with respect to time.
Failure, Secondary (Failure, Dependent)	Failure of an item which is caused by the failure of an associated item(s).
Failure, Subsidiary	A failure found after removal, which is not related to the reason for removal.
Failure Mode	The way in which the failure of an item occurs.
Flame-Out	The interruption of engine operation, resulting from total loss of combustion while the fuel control is in the "On" position.
Flight	A flight occurs each time an aircraft operating cycle is completed. (*See* cycle, aircraft operating).
Flight, Charter	A revenue flight that is not listed in the published timetable, but is booked for a specific purpose.
Flight, Ferry	A non-revenue flight made to position an aircraft for any reason.
Flight, Ferry (Technical)	A non-revenue flight made to position an aircraft because it requires maintenance action.
Flight, Leg	All passages, block to block, from one airport to the next airport of landing. **Note** — In the case of test or training flights, the terminating airport could be the same as the airport of origin.
Flight, Nonrevenue	A flight not intended to generate revenue.
Flight, Pilot Training	Any flight made to train or check out the flight crew.
Flight, Revenue	A flight intended to generate either passenger or freight revenue (or both).

Term	*Definition*
Flight, Scheduled	A flight which is listed in the published time-table.
Flight, Test	Any flight made to check an aircraft or any part of it.
Hours, APU	The auxiliary power unit operating time from start-up to shut-down.
Hours, Block [Hours, Flying (Block) Time]	The number of hours spent by an airplane from the moment it first moves for a flight until it comes to rest at its intended blocks at the next point of landing, or returns to its departure point prior to take-off. **Note** — Push-out from the gate is considered as part of block hours.
Hours, Flying (Airborne) (Time, Flight)	The accumulated time intervals between wheels-off and wheels-on.
Hours, Flying (Block)	*See* Hours, Block.
Hours, Out of Service	The number of elapsed hours that an aircraft is not available for operation when scheduled to be available. **Note** — The out-of-service hours start when an aircraft is first declared to be unavailable for a flight, and end when available for service.
Hours, Unit Flying	The accumulated flying hours of all like units installed in aircraft during a specified reporting period. **Note** — Unit flying hours are the product of total flying hours (airborne) of the aircraft in which units are installed and the number of units installed in each aircraft.
Incident, Technical	Any event of a technical nature which may be considered to significantly affect the potential airworthiness of an aircraft.
Index, Maintainability	A quantitative figure of merit which relates the maintainability of an item to a standard reference.
Inspection, Sample	The monitoring and/or withdrawal of selected devices from service to permit determination of their condition at predetermined progressive intervals.
Interchangeable (Interchangeable Two-Way)	An interchangeable part, sub-assembly, assembly or unit which meets or exceeds required functional and structural specifications for a given application. It has the same mounting provisions. Overall dimensions and connections may vary, provided that installation does not require rework or modification.
Interchangeable, One-Way	Introduces a new item and places restriction on the use of the old item. The new item may be used in place of either the old or the new, but the old item can only be used in an application where it has previously been installed. The new item is considered to supersede the old.
Interchangeable, Two-Way	*See* Interchangeable.
Interruption, Air (Technical) (Station, Return to Turn Back, AIR)	A change from original flight plan due to a known or suspected malfunction and/or defect during flight.
Interruption, Ground (Technical) (Turnback, Ground)	A ground interruption occurs when an aircraft leaves the block and returns for a technical reason before becoming airborne, or when after landing experiences a technical problem prior to reaching the block.

Term	*Definition*
Interval, Confidence	The range between the upper and lower values of the confidence limits.
Item	Any level of hardware assembly (that is, part, sub-system, system, accessory, component, unit, material, etc).
Item, Alternative	*See* Alternate.
Item, Bulk Material	A material used in random quantity such as liquid, paste, cloth, plastics, or of comparable composition. For example, oil, chemicals, paints, cleaners, solvents, abrasives, metals, fabrics, etc.
Item, Disassembly Threshold	Items having a specified threshold age. (*see* Age, threshold)
Item, Insurance	An item held by either the manufacturer or an airline purely as a precaution in order to preclude undue scheduling problems and/or economic hardship which might otherwise occur should the part be out of stock when a requirement occurs.
Item, Line Maintenance	Any item which can be readily changed on an aircraft during line maintenance operations.
Item,Maintenance Significant (MSI)	Maintenance items that are judged to be relatively the most important from a safety, reliability or economic stand-point.
Item, Structurally Significant (SSI)	Local areas of primary structure which are judged by the manufacturer to be relatively the most important from fatigue, corrosion vulnerability, or failure effects viewpoints.
Landing, Touch-and-go	A landing in which an aircraft touches the runway and does not come to a full stop prior to commencing an additional flight.
Level, Confidence	The probability that a given statement is correct.
Life	A period of time which is related to the usability of an item.
Life, Achieved Overhaul	The life achieved by an item before an overhaul becomes necessary.
Life, Declared	*See* Life, Maximum Permitted.
Life, Limited	*See* Life, Maximum Permitted.
Life, Maximum Permitted (Life, Limited; Life, Declared; Life, Ultimate)	The time specified by an appropriate authority after which a particular item must be removed from service and replaced.
Life, Service	The life of an item at which it is no longer physically or economically feasible to repair or overhaul the item to acceptable standards.
Life, Shelf	*See* Life, Storage.
Life, Storage (Life, Shelf)	The length of time an item can be stored under specified conditions and still meet specified requirements.
Life, Ultimate	*See* Life, Maximum Permitted.
Life, Useful (Period, Constant Failure Rate)	The length of time a population of items is expected to operate with a constant failure rate. This excludes any infant mortality and wearout periods.
Limits, Confidence	The values, upper and lower, between which a true value can be expected to fall, with a pre-established level of confidence.
Line Replaceable Unit (LRU)	A unit which can be readily changed on an aircraft during line maintenance operations.
List, Allowable Deficiency	*See* List: Minimum Equipment.

Term	*Definition*
List, Configuration Deviation (CDL)	Those items, such as access panels, caps, fairings, etc, normally forming part of the exterior profile of the aircraft, the absence of which do not prevent dispatch.
List, Dispatch Inoperative Equipment	*See* List, Minimum Equipment.
List, Go-no-go	*See* List, Minimum Equipment.
List, Minimum Equipment (MEL) **(List, Allowable Deficiency; List, Dispatch Inoperative Equipment; List, Go-no-go)**	An approved list of items which may be inoperative for flight under specified conditions.
Log Entries **(Log Report)**	All entries made by flight crew and maintenance personnel into the aircraft log.
Log Report	*See* Log Entries.
Maintainability	The characteristic of material design and installation that determines the requirements for maintenance expenditures, including time, manpower, personnel skill, test equipment, technical data and facilities to accomplish operation objectives in the operational environment of the user. Quantitatively, maintainability is expressed as the period of time within which the maintenance action can be performed with a specified probability using defined resources and prescribed procedures.
Maintenance	Those actions required for restoring or maintaining an item in serviceable condition, including servicing, repair, modification, overhaul, inspection and determination of condition.
Maintenance, Condition Monitored **(Condition Monitoring)**	A primary maintenance process under which data on the whole population of specified items in service are analyzed to indicate whether some allocation of technical resources is required. Not a preventive maintenance process, condition monitored maintenance allows failures to occur, and relies upon analysis of operating experience information to indicate the need for appropriate action. **Note** — Failure modes of condition monitored items do not have a direct adverse effect on operating safety.
Maintenance, Corrective	*See* Maintenance, Unscheduled.
Maintenance, Deferred	Maintenance associated with minor defects not having any bearing on flight safety, which is deferred to a convenient time and/or location for accomplishment.
Maintenance, Line **(Maintenance, Line Station)**	Routine check, inspection and malfunction rectification performed en-route and at base stations during transit, turn-around or night stop.
Maintenance, Line Station	*See* Maintenance, Line
Maintenance, Non-Routine	*See* Maintenance, Unscheduled
Maintenance, On-Condition **(On Condition)**	A primary maintenance process having repetitive inspections or tests to determine the condition of units, systems, or portions of structure with regard to continued serviceability (corrective action is taken when required by item condition).
Maintenance, Preventive	*See* Maintenance, Scheduled
Maintenance, Routine	*See* Maintenance, Scheduled

Term	*Definition*
Maintenance, Scheduled (Maintenance, Preventive; Maintenance, Routine)	That maintenance performed at defined intervals to retain an item in a serviceable condition by systematic inspection, detection, replacement of wear out items, adjustment, calibration, cleaning, etc.
Maintenance, Unscheduled (Maintenance, Corrective; Maintenance, Non-Routine)	That maintenance performed to restore an item to a satisfactory condition by providing correction of a known or suspected mal-function and/or defect.
Malfunction	The occurrence of a condition whereby the operation of an item is outside of specified limits.
Man-Function	The function allocated to the human component of a system.
Man-hours, Direct	Man-hours of work spent directly on the aircraft or removed items.
Man-hours, Maintenance	The man-hours required to complete the maintenance task.
Man-hours Per Flying Hour	A performance figure calculated by dividing the DIRECT MAN-HOURS expended to maintain a particular aircraft fleet during a given period by the flying hours (airborne) during that period.
MCUR	A special term for data transmission to cover a forecast of mean cycles between unscheduled removals that is provided by a supplier for provisioning purposes only. Presented as a forecast of the average interval in operating cycles between unscheduled removals (justified and unjustified), this factor is expressed in terms of one unit per aircraft, and it, therefore, represents the operating cycles for the part number being provisioned.
Mean Time Between Failure (MTBF)	A performance figure calculated by dividing the total unit flying hours (airborne) accrued in a period by the number of unit failures that occurred during the same period.
Mean Time to Maintenance	The arithmetic mean of the time intervals between maintenance actions.
Mean Time Between Removals (MTBR)	A performance figure calculated by dividing the total unit flying hours accrued in a period by the number of unit removals (scheduled plus unscheduled) that occurred during the same period.
Mean Time Between Unscheduled Removals (MTBUR)	A performance figure calculated by dividing the total unit flying hours (airborne) accured in a period by the number of unscheduled unit removals that occurred during the same period.
Mean Time to Failure (MTTF)	A performance figure calculated by dividing the summation of times to failure for a sample of failed items by the number of failed items in the sample. **Note** — This is different from MEAN TIME BETWEEN FAILURE since no allowance is given to experience of items which have not failed.
Mean Time to Repair (MTTR)	A performance figure calculated by dividing the total active repair times accrued in a period on a number of designated items by the number of these items repaired in the same period.
MTUR	A special term for data transmmission to cover a forecast of mean time between unscheduled removals that is provided by a supplier for provisioning purposes only. Presented as a forecast of the average interval in unit flying hours between unscheduled removals (justified and unjustified), this factor is expressed in terms of one unit per aircraft, and it, therefore, represents the part hours for the part number being provisioned.
Mechanism, Failure	The physical, chemical or other process which results in a failure.

Term	*Definition*
Modification, Mandatory	A modification classified as compulsory by the local civil aviation authorities.
Modification, Optional	A modification which may be incorporated at the discretion of the operator.
Modify	To change or alter through rework and/or through the installation or removal of an item.
Module	A combination of assemblies, subassemblies and parts, contained in one package, or so arranged as to be installed in one maintenance action.
On-Condition	*See* Maintenance, On-condition.
Optional	Indicates a choice of interchangeable items.
Order, Expedite	An order which specifies delivery in less than the supplier's quoted time or delayed delivery date, and is generated by a known requirement by a specified date.
Order, Job (Order, Work)	A document which authorizes work to be done and contains the necessary instructions and information regarding cost allocation.
Order, Work	*See* Order, Job
Overhaul	The restoration of an item in accordance with the instructions defined in the relevant manual.
Overhaul, Partial	The overhaul of a subassembly of an item with a time controlled overhaul to permit the item with longer life period to achieve its authorized OVERHAUL LIFE.
Overhaul, Record Control	*See* Overhaul, Time Controlled.
Overhaul, Time Controlled (Overhaul, Record Control)	An overhaul in accordance with a plan under which time histories of individual items are monitored. The monitoring system is used to schedule the removal of items before they exceed a specified time limit.
Part	One piece, or two or more pieces joined together which are not normally subject to disassembly without destruction of designed use.
Percent Life, Used	*See* Percent of Allowable Time Realized by an Item.
Percent of Allowable Time Realized by an Item (Percent Life, Used)	The ratio of the actual time accumulated by the item since it was last " zero-timed " to the specified time limit-expressed as a percentage.
Performance, Human	A measure of man-functions and actions in a specified environment.
Performance, Order Entry	A measure expressed as a percentage which is in turn derived from the ratio of orders placed at under the supplier-quoted lead time to total orders placed during a given period.
Performance, Supplier Shipping	A measure of shipping performance expressed as a percentage which is in turn derived from the ratio of the number of orders shipped up to the supplier quoted lead time or the airline request date, whichever is greater, to total orders shipped in a given period. For purposes of computation, the order is considered as shipped if packed on dock available for shipment but held pending special airline instructions. A partial shipment is considered as a completed shipment when made in the month due, but delinquent if made the following month even though shipment against that order is completed that month.

Term	*Definition*
Period, Constant Failure Rate	*See* Life, Useful.
Period, Infant Mortality	That early period, beginning at zero unit time, during which the failure rate of a family of items can be expected to decrease.
Period, Overhaul	*See* Time Between Overhauls (TBO).
Period, Wear Out Failure Rate	That period during which the failure rate of a family of the items can be expected to increase due to deterioration processes.
Pirep	*See* Complaints, Pilot.
Plan, Maintenance (Plan, Technical)	A document or set of documents which specify the maintenance required to assure the continuation of desired performance of an item or the safety of an aircraft.
Plan, Technical	*See* Plan, Maintenance.
Point, Servicing	An access specifically provided to permit servicing (lubrication, filling, draining, charging or cleaning) of equipment in the normal installed position.
Point, Test	A means of safe access to permit a measurement that will facilitate maintenance, repair, calibration, alignment, or monitoring. Test points may be accessible in the normally installed position or may require disassembly of equipment for accessibility. The former are called exposed test points, the latter internal test points.
Pool, Parts	An arrangement whereby participants are entitled to withdraw items from the agreed stock held by any participant.
Procedure, Alternate	*See* Alternate.
Programme, Actuarial	A statistical technique which uses historical data to depict the life expectancy of an item with respect to age.
Programme, Block Maintenance	A programme which divides major structural inspections and/or maintenance tasks into groups, or blocks, which permit convenient, economical and effective accomplishment.
Programme, Continuous Maintenance	A type of complete maintenance programme which is expected to assure continuous availability of the airplane. Under this system the total maintenance effort is apportioned to each of the various and more frequent types of maintenance. Note — A complete overhaul at one point of time is not a part of a continuous maintenance plan.
Programme, Equalized Maintenance	A maintenance programme whereby work packages are scheduled for accomplishment in such a manner that the required maintenance manpower will remain relatively constant. Portions of the heavier maintenance tasks are integrated into the lighter, or lesser, maintenance periods so that the work load fluctuations will be minimized.
Programme, Maintainability	The planning, development and implementation of those organized set of tasks directly related to the specification, assessment/prediction and verification of an item's design characteristics which make it possible to meet operational objectives with a minimum expenditure of maintenance and support effort.
Programme, Maintenance (Program, Work)	A programme which defines a logical sequence of maintenance actions to be performed as events or pieces of a whole which, when performed collectively, result in achievement of the desired maintenance standards.
Programme, Work	*See* Programme, Maintenance.

Term	*Definition*
Quick Engine Change Unit (QEC)	A maximum neutral engine plus those parts making it peculiar to a particular position on an aircraft.
Quotation	A supplier's offer in response to a customer's request for a specific proposal to sell a specific item, quantity of items, or service, or document including price, delivery, applicable terms and conditions, and validity period for the quotation.
Rate, Failure	The performance figure calculated by dividing the number of failures by the total unit hours or cycles accumulated during the same period. It is usually expressed as failures per 1 000 unit hours or cycles. **Note** — Failure rate is the reciprocal of mean time between failure.
Rate, Hazard	*See* RATE, INSTANTANEOUS FAILURE.
Rate, Instantaneous Failure (Rate, Hazard)	The conditional probability of failure in a small time interval, given the item has survived to the beginning of that interval.
Rate, Schedule Interruption	The ratio of the number of technical delays (normally greater than 15 minutes) plus the number of technical cancellations to the number of revenue departures, expressed as a rate per hundred departures.
Rate, Scrap	The number of items beyond the limits of economical repair, expressed as a quantity per unit of time.
Redundancy	The existence of more than one means for accomplishing a given function. Each means of accomplishing the function need not necessarily be identical.
Redundancy, Active	That redundancy wherein all redundant items are operating simultaneously rather than being activated when needed.
Redundancy, Standby	That redundancy wherein the alternative means of performing the function is inoperative until needed and is activated upon failure of the primary means of performing the function.
Reliability	The probability that an item will perform a required function, under specified conditions, without failure, for a specified period of time.
Reliability, Assessed	The reliability of an item determined within stated confidence limits from tests or failure data on nominally identical items.
Reliability, Dispatch	The percentage of flights which depart without incurring a delay (technical) or cancellation (technical).
Reliability, En-Route	The probability of successfully completing a flight plan without incurring a failure that would cause deviation from the flight plan.
Reliability, Human Performance	The probability that man will accomplish all required human functions under specified conditions.
Reliability, Inherent	The reliability potential in a given design configuration when used in accordance with the design specification.
Reliability, Predicted	The reliability of an item estimated from its design considerations and from the reliability of its parts in the intended conditions of use.
Remark, Pilot	Those entries In the aircraft log made by the flight crew for information purposes only.
Removal, Access	The removal of an item for the sole purpose of allowing ease of approach to another component (s) and where, due to the manner of installation, it is impossible or impractical to do so otherwise.
Removal, Bench Check	*See* REMOVAL, SHOP CHECK.

Term	*Definition*
Removal, Cannibalization (Removal, Parts Shortage Robbery)	The removal of an item to satisfy the needs of another aircraft or items.
Removal, Condition Analysis	The removal of an item for the sole purpose of determining its serviceability state at a specified time.
Removal, Confirmed	A removal where a failure or defect is found which substantiates the reason for removal.
Removal, Deferred Suspect	The removal of an item wherein impending malfunction is suspected, but actual removal has been deferred to a convenient time and/or location for accomplishment.
Removal, Engineer's Examination	The removal of an item at the request of engineer for investigation purposes.
Removal, Foreign Object Damage (FOD)	The removal of an item due to damage to any portion of the airplane caused by impact or ingestion of birds, stones, hail or other debris.
Removal, Hot Section Inspection	The removal of an item for the purpose of inspection and restoration of hot section item(s) at a predetermined time/cycle limit.
Removal, Item Problem	The removal of an item due to the inability of the item to perform within previously specified limits.
Removal, Justified	A removal where a defect or failure is found, whether or not the defect or failure substantiates the reason for removal.
Removal, Life Limited	*See* Removal, Restricted Parts.
Removal, Maintenance Convenience	A removal brought about for any reason other than as a result of the items' life having approached or achieved a previously defined limit or as a result of a known or suspected malfunction and/or defect.
Removal, Mandatory Directive	The removal of an item to accomplish an action classified as compulsory by the appropriate civil aviation regulatory authority.
Removal, Modification	The removal of an item for the sole purpose of embodying a modification.
Removal, On-Condition	The removal of an item required as the result of an on-condition inspection or test.
Removal, Parts Shortage	*See* Removal, Cannibalization.
Removal, Planned	The removal of an item which is selectable for the time and place, without affecting the routine operation of the aircraft.
Removal, Pool	The removal of an item for the purpose of returning it to a Spares Pool and/or other operator.
Removal, Reason for	The initially stated reasons for the removal of an item.
Removal, Restricted Parts (Removal, Life Limited)	The removal of an item in order to replace a life-limited part of that item.
Removal, Retrofit	The removal of an item for the purpose of replacing it with an alternate item.
Removal, Scheduled (Removal, Time)	A removal of an item brought about as a result of the items's life having approached or achieved a previously defined limit.
Removal, Scheduled Maintenance	The removal of an item to perform maintenance at defined intervals to retain an item in a serviceable condition by systematic inspection, detection, replacement of worn out items, adjustment, calibration, cleaning, etc.

Term	*Definition*
Removal, Section	The removal of an item in conjunction with the removal of a higher assembly.
Removal, Service/Performance Evaluation	The removal of an item for the purpose of evaluation.
Removal, Shop Check (Removal, Bench Check)	The removal of an item for specific functional check of that item within a workshop.
Removal, Time	*See* Removal, Scheduled.
Removal, Trouble Shooting	A removal in which an item is removed and replaced by another item for the sole purpose of determining whether the malfunction persists.
Removal, Unconfirmed	The removal of an item where no defect or failure is found which substantiates the reason for removal, even though another defect or failure may be found.
Removal, Under Investigation	The removal of an item brought about by symptoms of operational problems/performance where the cause has not been identified.
Removal, Unjustified	The removal of an item where no defect or failure is found.
Removal, Unscheduled	The removal of an item brought about as a result of a known or suspected malfunction and/or defect.
Removal Rate	The number of removals of an item expressed in terms of a base period; usually per 1 000 aircraft hours, 1 000 item hours, 1 000 engine hours, and sometimes per 100 or 1 000 departures.
Repair	The restoration of an item to a serviceable condition.
Repairability	The potential of a failed item to be restored to a serviceable state in a specified time under stated conditions.
Replace	The action whereby an item is removed and another item is installed in its place for any reason.
Reports, Pilot	*See* Complaints. Pilot.
Requirement, Maintainability	A comprehensive statement of required maintenance characteristics, expressed in either qualitative or quantitative terms *or both*, to be satisfied by the design of an item.
Requirements, Maintenance	*See* Specification, Maintenance.
Resources, Maintenance	Facilities, ground support equipment, manpower, spares, consumables, and funds available to maintain and support an item in its operational environment.
Robbery	*See* Removal, Cannibalization.
Rotatable	An item that can be economically restored to a serviceable condition and in the normal course of operations is repeatedly rehabilitated to a fully serviceable condition over a period approximating the life of the flight equipment to which it is related.
Run-in (Burn-in)	The operation of an item to stabilize its characteristics.
Servicing	The replenishment of consumables needed to keep an item or aircraft in operating condition.
Shutdown	Cessation of engine operation for any reason other than training or normal operating procedures.

Term	*Definition*
Shutdown, Ground	An engine shutdown which occurs at any time an aircraft is not airborne.
Shutdown, Inflight	An engine shutdown which occurs at any time an aircraft is airborne.
Snag	*See* Complaint.
Spare, Ready	An item which has been assembled to the point that it can be attached to an aircraft without further build-up or assembly other than that necessary to fit it to its unique position.
Spares Float	The quantity of individual items held (additional to those installed on aircraft) for the purpose of providing replacements for those removed from aircraft for overhaul, repair or rectification.
Spares Range	The total number of different items individually identified by part number or description. It excludes any reference to quantities of individual items.
Specification, Maintenance (Requirements, Maintenance)	Definition of what tasks have to be performed, and when.
Specification, Operations (Aircraft Maintenance)	A document approved by the appropriate airworthiness authority which establishes an air carrier's maintenance programme and includes time control programmes for airframe, systems, engines and components as required. This document is initiated by an air carrier and is official only after it has been approved by the appropriate airworthiness authority. It must be approved prior to operation of each type of airplane in scheduled service and separately for each air carrier.
Station, Return to	*See* Interruption, Air (Technical)
Study, Work	*See* Analysis, Maintenance.
Subassembly	Two or more parts which form a portion of an assembly or a unit replaceable as a whole, but having a part or parts which are individually replaceable.
Substitution, Equipment (Technical)	The assignment of an alternative type of aircraft to replace the aircraft orginally assigned which had encountered a technical problem. **Note**—Some operators consider assignment of an alternative aircraft regardless of type to constitute an equipment substitution.
Subsystem	A major functional part of a system which contributes to operational completeness of the system.
Supersede	A new item ' supersedes ' an old item when the latter will eventually be forced out of use. I with regard to technical data 'superseded' indicates the removal of all or any part of the publication and the issuance of a revision.
Surplus	Indicates a specified quantity of an item which is over and above that required to meet the forecasted stock requirements in support of normal operations.
System	A combination of interralated items arranged to perform a specific function.
Take-off, Abandoned	*See* Takeoff, Aborted
Take-off, Aborted (Take-off, Abandoned)	A take-off which has to be discontinued for any reason.

Term	*Definition*
Test	An examination of an item in order to ensure that the item meets the specified requirements.
Test, Accelerated	A test in which the applied stress level is chosen to exceed that stated in the reference conditions in order to shorten the time required to observe the stress response of the item, or magnify the response in a given time. To be valid, an accelerated test must not alter the basic modes and/or mechanisms of failure or their relative prevalence.
Test, Functional	*See* Check Functional.
Test Non-Destructive	A test which in no manner affects the function or serviceability of the item undergoing test.
Time	Any appropriate unit of life measurement such as hours, cycles, landings, etc.
Time, Active Maintenance	The time during which preventive and corrective maintenance work is actually being done on the item.
Time, Average Trip	The ratio between the number of flying hours for a given period and the number of departures for the same given period.
Time, Block	*See* Hours, Block.
Time, Flight	*See* Hours, Flying (Airborne).
Time, Job Standard (Time, Target)	The time allowed for a given task.
Time, Lead	Specifies the maximum number of calendar days needed by the supplier on a re-order after receipt of a purchase order to make shipment to the customer of a specified quantity. Initial provisioning lead times are normally established by individual General Terms Agreements.
Time, Mean Maintenance	The statistical mean of the distribution of scheduled or un-scheduled (or both) maintenance times. The summation of the duration of scheduled or unscheduled (or both) maintenance time during a given period divided by the total number of scheduled or unscheduled maintenance actions (or both) during the same time period is an estimate of Mean Scheduled Maintenance Time (Ms), Mean Unscheduled Maintenance Time (Mu), [or Mean Maintenance Time (M)]
Time, Mean Task	A representative task time, equal to the summation of all task times required to perform a specific task a number of different times divided by the number of times the task is performed.
Time, Operating	The time period during which the equipment is performing its intended function.
Time, Preventive Maintenance	That portion of maintenance time used in accomplishing a preventive maintenance.
Time, Target	*See* Time, Job Standard.
Time, Task Elapsed	The calendar time from the commencement to the completion of a defined task.
Time, Total	The operating time an item has accumulated since new.
Time, Turn Around	That time needed to repair, service or checkout an item or aircraft for recommitment to operational service.

Term	*Definition*
Time Between Overhauls (TBO) (Overhaul Period)	The maximum time that an item is permitted to operate between overhauls.
Time Since Check	The time accumulated since an item was last checked.
Time Since Installation (TSI)	Time accumulated since a given item was last installed.
Time Since Last Shop Visit	Time accumulated since a given item last visited a shop.
Time Since Overhaul (TSO)	The time accumulated since a given item was last overhauled.
Ton Miles, Capacity	The product of the assessed capacity of an aircraft (expressed in short tons of 2 000 pounds) and the number of miles flown on revenue flights (expressed in Great Circle statute miles) over a given period. The equivalent metric term is CAPACITY TONNE KILOMETRES.
Ton Miles, Production	A figure calculated by adding CAPACITY TON MILES to the equivalent ton miles produced by non-revenue flying.
Trade-off	The procedure of trading a degree of one attribute to gain a degree of another attribute, for example, a degree of reliability might be sacrificed to obtain a greater degree of performance under certain conditions, or a degree of performance might be sacrificed to obtain a greater capability for maintenance, or vice versa.
Trip	The entire passage, consisting of one or more flight legs, from leaving the airport of origin to arrival at the airport of final destination.
Trouble	Any actual or suspected malfunction and/or defect.
Trouble Shooting	Locating and diagnosing malfunctions or breakdowns in equipment by means of systematic checking or analysis.
Turnback, Air	*See* Interruption, Air (Technical).
Turnback, Ground	*See* Interruption, Ground (Technical).
Unit	A part or any combination of parts, mounted together, normally capable of independent operation.
Unit, Line Replaceable	*See* Line Replaceable Unit
Usage, Dispatch Inoperative Equipment List	*See* Usage, Minimum Equipment List.
Usage, Minimum Equipment List (Usage, Dispatch Inoperative Equipment List)	The number of occasions on which the Minimum Equipment List is used. **Note** — The MEL is used when an aircraft is dispatched with some item either inoperative or less than 100 percent operative, and such dispatch is permitted by the operators' MEL The MEL is used more than once per departure, if such departure occurs with more than one item less than one hundred percent operative.
Utilization	*See* Aircraft Utilization.

EXPLANATORY NOTE

The purpose of the World Airlines Technical Operations Glossary is to provide common definitions of terms that have a special significance to the airlines Technical Operations community. The term "technical operations" as used in the title is intended to define a subject area comprising those matters coming under the purview of the airlines' maintenance and engineering functional organizations, including their interfaces with the manufacturer's engineering and product support functional organizations. The modifier "Technical" as used in glossary of terms is intended to restrict the meaning of the terms to the Technical Operations subject area.

In selecting terms to be included in the glossary, the sponsoring organizations have followed the convention that only those terms having a special significance in the Technical Operations subject area beyond commonly understood language usage would be included. Consistent with this convention, and to avoid unnecessary volume of the glossary, terms which have acceptable dictionary definitions have been specifically excluded.

Throughout the glossary the use of the words "Time" and "Item" in the text of definitions shall be understood to have meaning as defined below:

TIME	Any appropriate unit of life measurement such as hours, cycles, landings, etc.
ITEM	Any level of hardware assembly (that is, part, sub-system, system, accessory, component, unit, material, etc.).

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